```
=> fil casrea; d stat que l46
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FILE CONTENT:1840 - 11 Mar 2007 VOL 146 ISS 11

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*************************************************************
*                                                           *
*     CASREACT now has more than 12 million reactions       *
*                                                           *
*************************************************************

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This file contains CAS Registry Numbers for easy and accurate substance
identification.

L1                STR

    RRT                                  PRO
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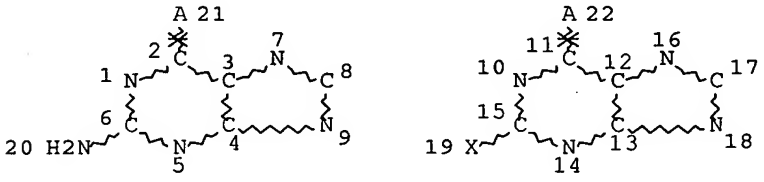


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NSPEC   IS RC     AT  22
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  22

STEREO ATTRIBUTES: NONE

  ****MAPPINGS****
NOD SYM       ROL    NOD SYM       ROL
 21 A         RRT     22 A         PRO
 22 A         PRO     21 A         RRT
L4            81 SEA FILE=CASREACT SSS FUL L1 (   264 REACTIONS)
L20              STR
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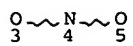

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GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
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STEREO ATTRIBUTES: NONE
L23 76 SEA FILE=CASREACT SUB=L4 SSS FUL L20 (250 REACTIONS)
L25 STR

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GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 2

STEREO ATTRIBUTES: NONE
L28 8 SEA FILE=CASREACT SUB=L4 SSS FUL L25 (18 REACTIONS)
L29 7 SEA FILE=CASREACT ABB=ON L28 AND L23
L46 7 SEA FILE=CASREACT ABB=ON L29 OR (L29 AND (L23 OR L28))

=> fil capl; d stat que l44
FILE 'CAPLUS' ENTERED AT 16:51:31 ON 12 MAR 2007
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FILE COVERS 1907 - 12 Mar 2007 VOL 146 ISS 12
FILE LAST UPDATED: 11 Mar 2007 (20070311/ED)

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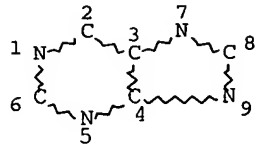
They are available for your review at:

http://www.cas.org/infopolicy.html
'OBI' IS DEFAULT SEARCH FIELD FOR 'CAPLUS' FILE

L5 184754 SEA FILE=REGISTRY ABB=ON X/ELS AND SI/ELS
L30 STR



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GRAPH ATTRIBUTES:
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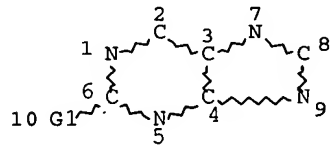

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DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC I
NUMBER OF NODES IS 10

STEREO ATTRIBUTES: NONE
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L36 13779 SEA FILE=REGISTRY ABB=ON L35 AND X/ELS
L37 48840 SEA FILE=REGISTRY ABB=ON L35 NOT L36
L38 93825 SEA FILE=CAPLUS ABB=ON L37
L39 3461 SEA FILE=CAPLUS ABB=ON L36/P
L40 9922 SEA FILE=CAPLUS ABB=ON L38(L)RACT/RL
L41 177552 SEA FILE=CAPLUS ABB=ON L5
L42 207 SEA FILE=CAPLUS ABB=ON L39 AND L40 AND L41
L43 56042 SEA FILE=CAPLUS ABB=ON NITRITE#/OBI
L44 4 SEA FILE=CAPLUS ABB=ON L43 AND L42

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FILE 'CASREACT' ENTERED AT 16:51:39 ON 12 MAR 2007
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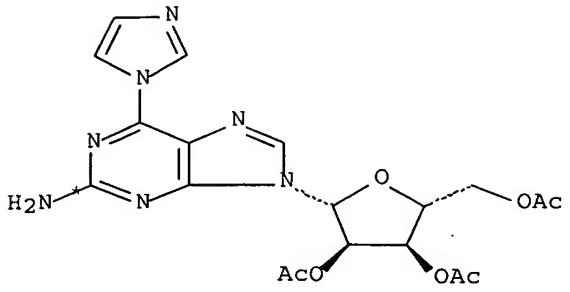
PROCESSING COMPLETED FOR L46
PROCESSING COMPLETED FOR L44
L47 11 DUP REM L46 L44 (0 DUPLICATES REMOVED)
ANSWERS '1-7' FROM FILE CASREACT
ANSWERS '8-11' FROM FILE CAPLUS

=> d ibib abs hit

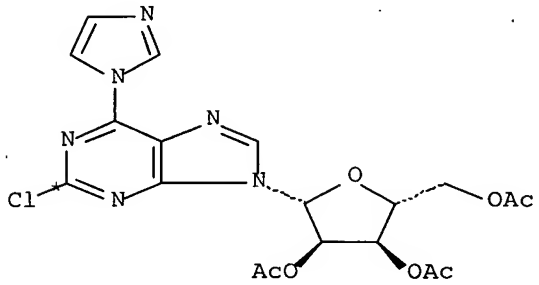
L47 ANSWER 1 OF 11 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 145:62710 CASREACT Full-text
TITLE: Structure and Synthesis of 6-(Substituted-imidazol-1-yl)purines: Versatile Substrates for Regiospecific Alkylation and Glycosylation at N9
AUTHOR(S): Zhong, Minghong; Nowak, Ireneusz; Cannon, John F.; Robins, Morris J.
CORPORATE SOURCE: Department of Chemistry and Biochemistry, Brigham Young University, Provo, UT, 84602-5700, USA
SOURCE: Journal of Organic Chemistry (2006), 71(11), 4216-4221
CODEN: JOCEAH; ISSN: 0022-3263
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB X-ray crystal structures of several 6-(azolyl)purine base and nucleoside derivs. show essentially coplanar conformations of the purine and appended 6-(azolyl) rings. However, the planes of the purine and imidazole rings are twisted .apprx.57° in a 2-chloro-6-(4,5-diphenyl-imidazol-1- yl)purine nucleoside, and a twist angle of .apprx.61° was measured between the planes of the purine and pyrrole rings in the structure of a 6-(2,5-dimethyl-pyrrol-1-yl)purine nucleoside derivative Shielding "above" N7 of the purine ring by a proximal C-H on the 6-azolyl moiety is apparent with the coplanar compds., but this effect is diminished in those without coplanarity. Syntheses of 6-(azolyl)purines from both base and nucleoside starting materials are described. Treatment of 2,6-dichloropurine with imidazole gave 2-chloro-6-(imidazol-1-yl)purine. Modified Appel reactions at C6 of trityl-protected hypoxanthine and guanine derivs. followed by detritylation gave 6-(imidazol-1-yl)- and 2-amino-6-(imidazol-1- yl)purines. Imidazole was introduced at C6 of 2',3',5'-tri-O-acetyl- inosine by a modified Appel reaction, and solvolysis of the glycosyl linkage gave 6-(imidazol-1-yl)purine. Guanosine triacetate was transformed into the protected 2,6-dichloropurine nucleoside, which was subjected to SNAr displacement with imidazoles at C6 followed by glycosyl solvolysis to provide 2-chloro-6-(substituted-imidazol-1-yl)purines. Potential applications of these purine derivs. are outlined.
REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

RX(10) OF 40 ...AE ===> AC...



AE

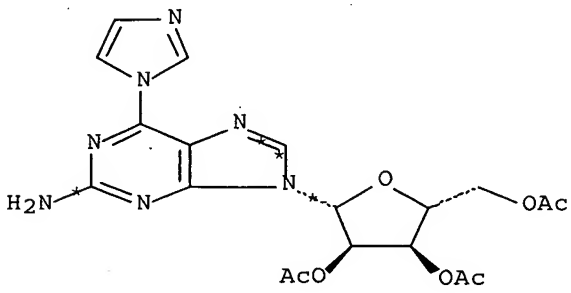
(10)



AC
YIELD 81%

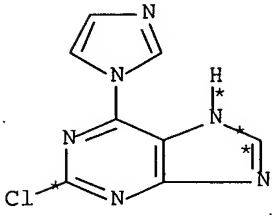
RX(10) RCT AE 891497-84-0
RGT AF **121699-36-3** Benzenemethanaminium, N,N,N-triethyl-, nitrite, AG **75-77-4** Me3SiCl
PRO AC 891497-83-9
SOL 75-09-2 CH2Cl2
CON overnight, room temperature

RX(27) OF 40 COMPOSED OF RX(10), RX(8)
RX(27) AE ===> Z



AE

2 STEPS



Z
YIELD 58%

RX(10) RCT AE 891497-84-0

RGT AF 121699-36-3 Benzenemethanaminium, N,N,N-triethyl-, nitrite, AG 75-77-4 Me3SiCl
PRO AC 891497-83-9
SOL 75-09-2 CH2Cl2
CON overnight, room temperature

RX(8) RCT AC 891497-83-9

STAGE(1)
RGT T 75-36-5 AcCl
SOL 64-19-7 AcOH
CON 11 hours, 65 deg C

STAGE(2)
RGT P 1310-73-2 NaOH
SOL 7732-18-5 Water
CON room temperature

STAGE(3)
RGT Q 124-38-9 CO2
CON room temperature, neutralized

PRO Z 891497-82-8

=> d ibib abs hit 2-7; d ibib ed abs hitstr 8-11; fil hom

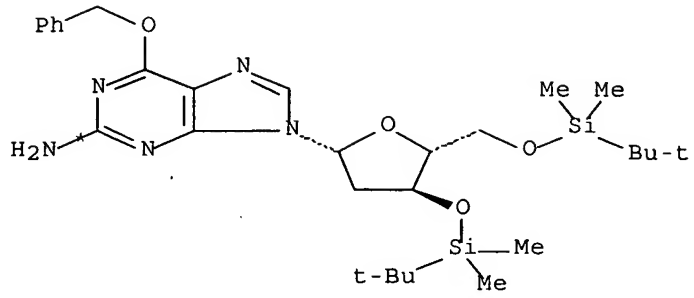
L47 ANSWER 2 OF 11 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 143:347381 CASREACT Full-text
TITLE: Synthesis and Reactions of 2-Chloro- and 2-Tosyloxy-2'-deoxyinosine Derivatives
AUTHOR(S): Pottabathini, Narender; Bae, Suyeal; Pradhan, Padmanava; Hahn, Hoh-Gyu; Mah, Heduck; Lakshman, Mahesh K.
CORPORATE SOURCE: Department of Chemistry, The City College and The City University of New York, New York, NY, 10031-9198, USA
SOURCE: Journal of Organic Chemistry (2005), 70(18), 7188-7195
CODEN: JOCEAH; ISSN: 0022-3263
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Convenient syntheses of 2-chloro- and 2-tosyloxy-2'-deoxyinosine as their tert-butyldimethylsilyl ethers are described. Both compds. can be synthesized via a common route and rely on com. available 2'-deoxyguanosine. The present method leading to the chloro nucleoside is operationally simpler compared to previously reported glycosylation techniques where isomeric products were obtained. Both electrophilic nucleosides can be used for the preparation of N-substituted 2'-deoxyguanosine analogs via displacement of the leaving groups, and a comparison of their reactivities shows the chloro analog to be superior. Interestingly, a Pd catalyst-mediated, two-step, one-pot conversion of an allyl-protected chloro nucleoside intermediate to the final modified 2'-deoxyguanosine derivs. is also feasible. On the basis of these observations, initial assessments of Pd-catalyzed aryl amination as well as a C-C cross-coupling have also been performed with the chloro and tosyloxy nucleoside substrates. Results indicate a potentially high synthetic utility of 2-chloro-2'-deoxyinosine and in many instances this derivative can supplant the bromo and fluoro analogs that are more cumbersome to prepare or are not readily available.

REFERENCE COUNT: 53 THERE ARE 53 CITED REFERENCES AVAILABLE FOR THIS

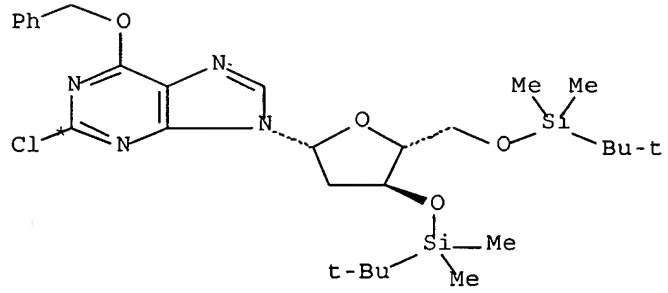
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

RX(1) OF 62 A ===> B...



A

(1)



B

RX(1)

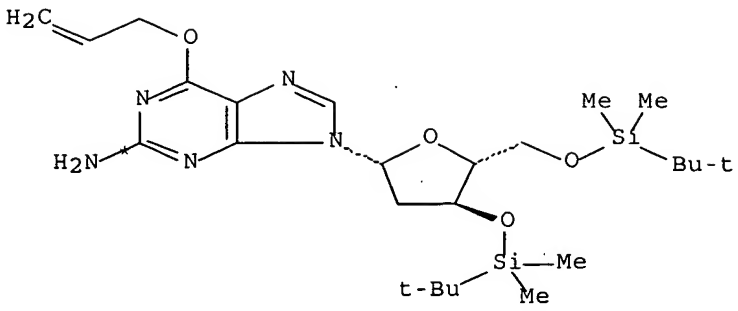
STAGE(1)
RGT C **540-80-7** t-BuONO
SOL 75-09-2 CH2Cl2
CON room temperature -> -10 deg C

STAGE(2)
RCT A 236427-57-9
RGT D **75-77-4** Me3SiCl
SOL 75-09-2 CH2Cl2
CON 2 hours, -10 deg C

STAGE(3)
RGT E 144-55-8 NaHCO3
SOL 7732-18-5 Water, 75-09-2 CH2Cl2

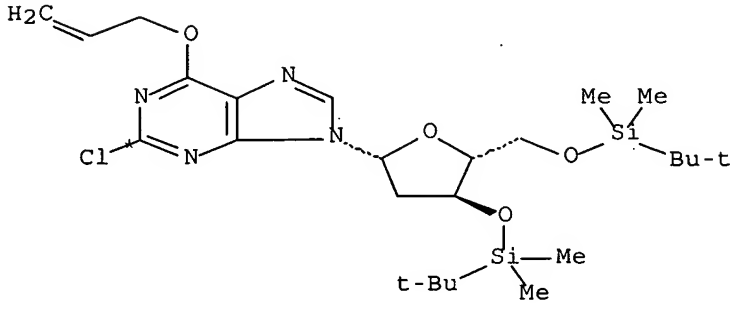
PRO B 865710-39-0

RX(2) OF 62 H ===> I...



H

(2) →



I
YIELD 52%

RX(2)

STAGE(1)
RGT C **540-80-7** t-BuONO
SOL 75-09-2 CH2Cl2
CON room temperature -> -10 deg C

STAGE(2)
RCT H 150903-99-4
RGT D **75-77-4** Me3SiCl
SOL 75-09-2 CH2Cl2
CON 2 hours, -10 deg C '

STAGE(3)
RGT E 144-55-8 NaHCO3
SOL 7732-18-5 Water, 75-09-2 CH2Cl2

PRO I 865710-40-3

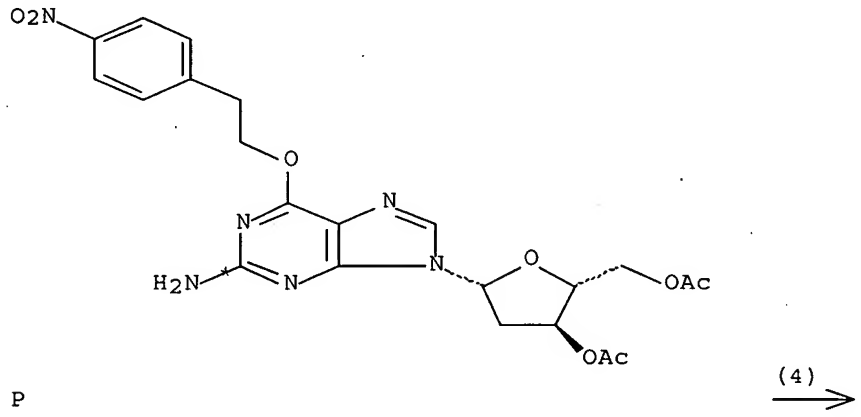
L47 ANSWER 3 OF 11 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 142:392592 CASREACT Full-text
TITLE: Synthesis of Adducts of o-Quinone Metabolites of Carcinogenic Polycyclic Aromatic Hydrocarbons with 2'-Deoxyribonucleosides

AUTHOR(S): Dai, Qing; Ran, Chongzhao; Harvey, Ronald G.
CORPORATE SOURCE: Ben May Institute for Cancer Research, The University of Chicago, Chicago, IL, 60637, USA
SOURCE: Organic Letters (2005), 7(6), 999-1002
CODEN: ORLEF7; ISSN: 1523-7060
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The first syntheses of the adducts formed in the reactions of o-quinone metabolites of carcinogenic polycyclic aromatic hydrocarbons (BPQ and BAQ) at 2'-deoxyadenosine and 2'-deoxyguanosine sites in DNA are reported. These syntheses entail Pd-catalyzed coupling of protected amine derivs. of catechols with suitably protected halopurine analogs of 2'-deoxyribonucleosides.

REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

RX(4) OF 143 **P** ===> Q...



P

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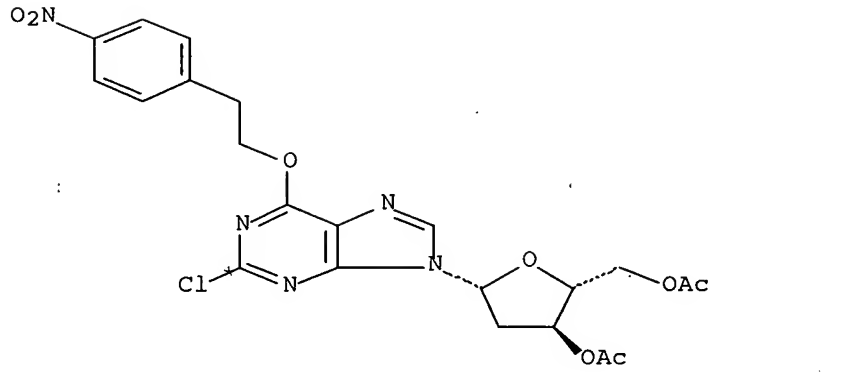


Q
YIELD 75%

RX(4) RCT P 108310-92-5

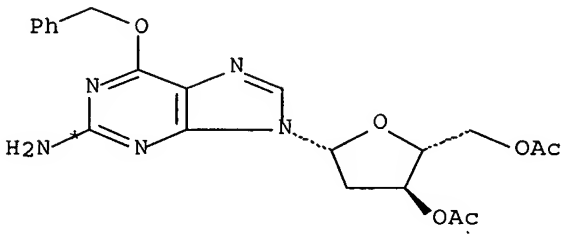
STAGE(1)

RGT K 540-80-7 t-BuONO, L 75-77-4 Me3SiCl
SOL 75-09-2 CH2Cl2
CON SUBSTAGE(1) 0 deg C
SUBSTAGE(2) 1 hour, 0 deg C

STAGE(2)
RGT M 144-55-8 NaHCO3
SOL 7732-18-5 Water
CON 0 deg C

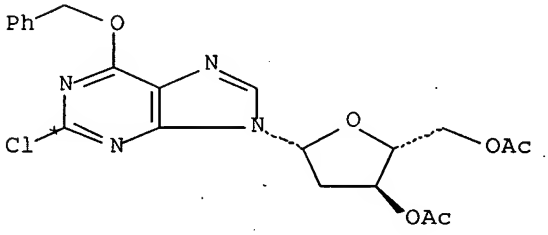
PRO Q 849830-82-6

RX(5) OF 143 R ===> S...



R

(5)



S
YIELD 60%

RX(5) RCT R 144640-75-5

STAGE(1)
RGT K 540-80-7 t-BuONO, L 75-77-4 Me3SiCl
SOL 75-09-2 CH2Cl2
CON SUBSTAGE(1) 0 deg C
SUBSTAGE(2) 1 hour, 0 deg C

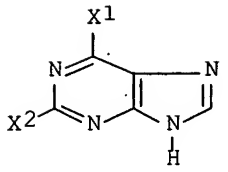
STAGE(2)
RGT M 144-55-8 NaHCO3
SOL 7732-18-5 Water
CON 0 deg C

PRO S 849830-81-5

L47 ANSWER 4 OF 11 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 139:307792 CASREACT Full-text
TITLE: Regioselective halogenation method for the production of 2,6-dihalopurines
INVENTOR(S): Hayashi, Taketo; Kumazawa, Hiroharu; Kawakami, Takehiko
PATENT ASSIGNEE(S): Sumika Fine Chemicals Co., Ltd., Japan
SOURCE: PCT Int. Appl., 19 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003084958	A1	20031016	WO 2003-JP4259	20030403
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003226448	A1	20031020	AU 2003-226448	20030403
EP 1490369	A1	20041229	EP 2003-745893	20030403
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
US 2005131229	A1	20050616	US 2003-509802	20030403
CN 1646532	A	20050727	CN 2003-807596	20030403
JP 2005523911	T	20050811	JP 2003-582155	20030403
IN 2004CN02111	A	20060303	IN 2004-CN2111	20040922
PRIORITY APPLN. INFO.:			JP 2002-102456	20020404
			WO 2003-JP4259	20030403

OTHER SOURCE(S): MARPAT 139:307792
GI



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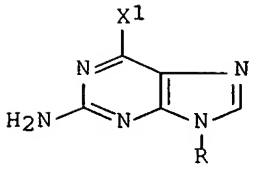
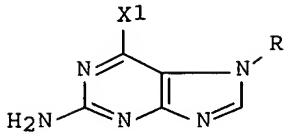


II

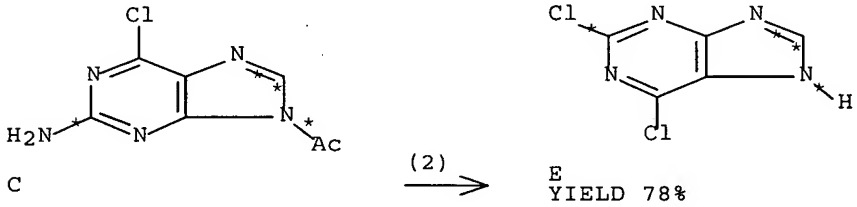


III

AB 2,6-Dihalopurines (I; X1, X2 = halogen; e.g., 2,6-dichloropurine) are prepared in high yield and selectivity by the regioselective halogenation of a 2-amino-6-halopurine (II, III; R = H, acyl; e.g., 9-acetyl-2-amino-6- chloropurine) with a halosilane (e.g., dichlorodimethylsilane) and an agent for the diazo reaction (e.g., isoamyl nitrite).

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

RX(2) OF 6 ...C ===> E



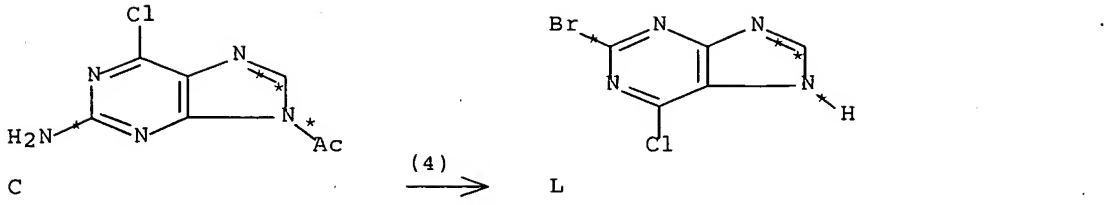
C

(2)

E
YIELD 78%

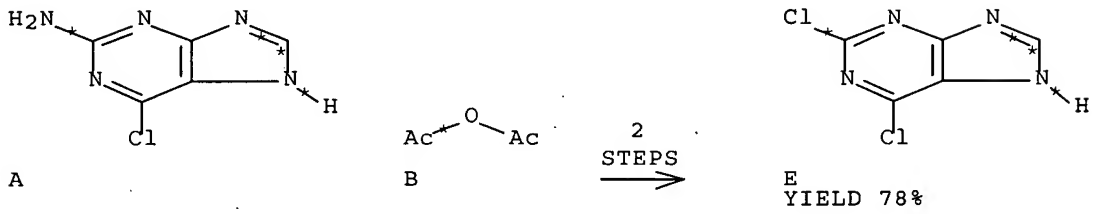
RX(2) RCT C 470483-92-2
RGT F **75-77-4** Me3SiCl, G **110-46-3** Isoamyl nitrite
PRO E 5451-40-1
CAT 56-34-8 Et4N Cl
SOL 142-82-5 Heptane
CON SUBSTAGE(1) room temperature
SUBSTAGE(2) room temperature -> 60 deg C
SUBSTAGE(3) 10 hours
NTE optimization study

RX(4) OF 6 ...C ===> L



RX(4) RCT C 470483-92-2
RGT M **2857-97-8** Me3SiBr, G **110-46-3** Isoamyl nitrite
PRO L 500797-85-3
SOL 109-99-9 THF
CON SUBSTAGE(1) room temperature
SUBSTAGE(2) 19 hours, 20 - 25 deg C

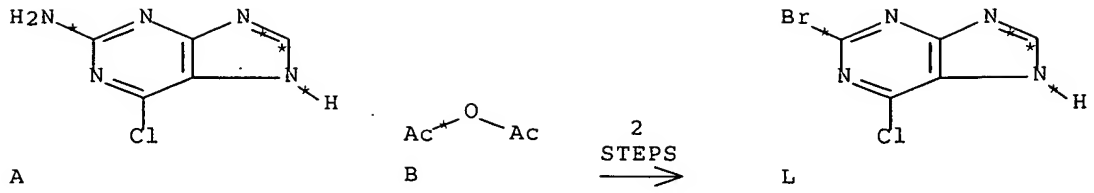
RX(5) OF 6 COMPOSED OF RX(1), RX(2)
RX(5) A + B ===> E



RX(1) RCT A 10310-21-1, B 108-24-7
PRO C 470483-92-2
SOL 127-19-5 AcNMe2
CON SUBSTAGE(1) room temperature
SUBSTAGE(2) room temperature -> 60 deg C
SUBSTAGE(3) 4 hours

RX(2) RCT C 470483-92-2
RGT F **75-77-4** Me3SiCl, G **110-46-3** Isoamyl nitrite
PRO E 5451-40-1
CAT 56-34-8 Et4N Cl
SOL 142-82-5 Heptane
CON SUBSTAGE(1) room temperature
SUBSTAGE(2) room temperature -> 60 deg C
SUBSTAGE(3) 10 hours
NTE optimization study

RX(6) OF 6 COMPOSED OF RX(1), RX(4)
RX(6) A + B ===> L

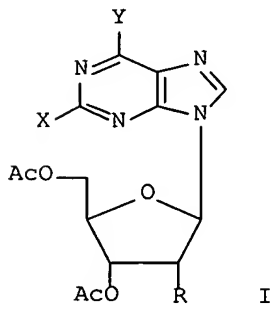


A B L

RX(1) RCT A 10310-21-1, B 108-24-7
PRO C 470483-92-2
SOL 127-19-5 AcNMe2
CON SUBSTAGE(1) room temperature
SUBSTAGE(2) room temperature -> 60 deg C
SUBSTAGE(3) 4 hours

RX(4) RCT C 470483-92-2
RGT M **2857-97-8** Me3SiBr, G **110-46-3** Isoamyl nitrite
PRO L 500797-85-3
SOL 109-99-9 THF
CON SUBSTAGE(1) room temperature
SUBSTAGE(2) 19 hours, 20 - 25 deg C

L47 ANSWER 5 OF 11 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 138:153761 CASREACT Full-text
TITLE: Nucleic Acid Related Compounds. 118. Nonaqueous Diazotization of Aminopurine Derivatives. Convenient Access to 6-Halo- and 2,6-Dihalopurine Nucleosides and 2'-Deoxynucleosides with Acyl or Silyl Halides
AUTHOR(S): Francom, Paula; Robins, Morris J.
CORPORATE SOURCE: Department of Chemistry and Biochemistry, Brigham Young University, Provo, UT, 84602-5700, USA
SOURCE: Journal of Organic Chemistry (2003), 68(2), 666-669
CODEN: JOCEAH; ISSN: 0022-3263
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
GI

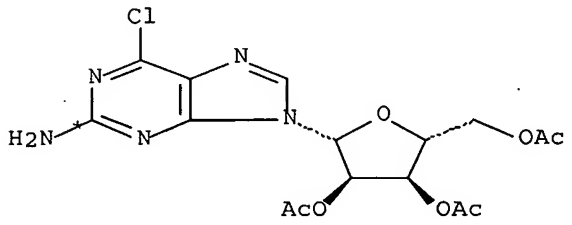


I

AB Treatment of 9-(2,3,5-tri-O-acetyl-β-D-ribofuranosyl)-2-amino-6- chloropurine with TMS-Cl and benzyltriethylammonium nitrite (BTEA-NO2) in dichloromethane gave the crystalline 2,6-dichloropurine nucleoside I (R = OAc, X = Y = Cl), and acetyl chloride/BTEA-NO2 was equally effective (.apprx.85%, without chromatog.). TMS-Br/tert-Bu nitrite/dibromomethane gave crystalline 2-bromo-6-chloro analog I (R = OAc, X = Br, Y = Cl) (85%). (Chloro or bromo)-dediazoniation of 3',5'-di-O-acetyl-2'-deoxyadenosine gave chloro I (R = X = H, Y = Cl) (63%) or bromo I (R = X = H, Y = Br) (80%) purine deoxynucleosides, and 2',3',5'-tri-O-acetyladenosine was converted into the 6-chloropurine nucleoside I (R = OAc, X = H, Y = Cl) (71%).

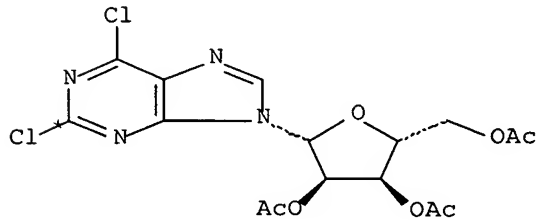
REFERENCE COUNT: 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

RX(1) OF 9 A ===> B



A

(1) →



B
YIELD 86%

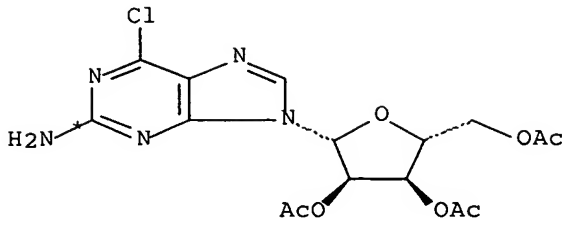
RX(1) RCT A 16321-99-6

STAGE(1)
RGT C **75-77-4** Me3SiCl, D **121699-36-3**
Benzenemethanaminium, N,N,N-triethyl-, nitrite
SOL 75-09-2 CH2Cl2
CON SUBSTAGE(1) 1 hour, room temperature
SUBSTAGE(2) 15 minutes

STAGE(2)
RGT E 144-55-8 NaHCO3
SOL 7732-18-5 Water, 75-09-2 CH2Cl2

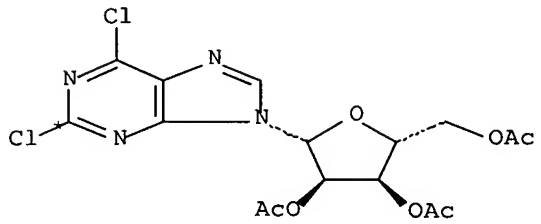
PRO B 3056-18-6
NTE yield depends on temp.

RX(2) OF 9 A ===> B



A

(2) →



B
YIELD 84%

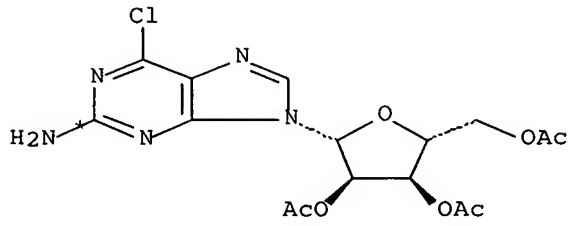
RX(2) RCT A 16321-99-6

STAGE(1)
RGT H 75-36-5 AcCl
SOL 75-09-2 CH2Cl2
CON 15 minutes

STAGE(2)
RGT D **121699-36-3** Benzenemethanaminium, N,N,N-triethyl-, nitrite
SOL 75-09-2 CH2Cl2

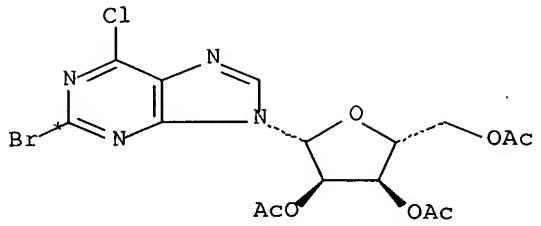
PRO B 3056-18-6

RX(3) OF 9 A ===> I



A

(3) →



I
YIELD 85%

RX(3) RCT A 16321-99-6

STAGE(1)
RGT J 2857-97-8 Me3SiBr, K 540-80-7 t-BuONO
SOL 74-95-3 CH2Br2
CON 1 hour, room temperature

STAGE(2)
RGT E 144-55-8 NaHCO3
SOL 7732-18-5 Water, 75-09-2 CH2Cl2

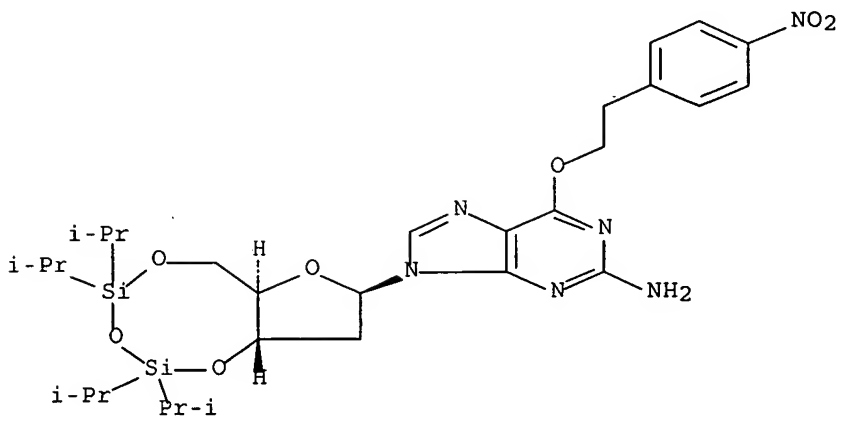
PRO I 40896-58-0

L47 ANSWER 6 OF 11 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 138:153765 CASREACT Full-text
TITLE: Poly-amino-oligonucleotides and their combinatorial libraries
AUTHOR(S): Szmanda, Anna; Markiewicz, Maria; Godzina, Przemyslaw; Markiewicz, Wojciech T.
CORPORATE SOURCE: Institute of Bioorganic Chemistry, Polish Academy of Sciences, Poznan, PL-61704, Pol.
SOURCE: Collection Symposium Series (2002), 5(Chemistry of Nucleic Acid Components), 16-26
CODEN: CSYSFN
PUBLISHER: Institute of Organic Chemistry and Biochemistry, Academy of Sciences of the Czech Republic
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Synthesis of oligonucleotides modified with natural polyamines at nucleobases in positions that do not interfere with Watson-Crick type base pairing was accomplished by phosphoramidite approach using appropriately protected poly-amino-nucleoside 3'-phosphoramidites. The effect of polyamine modification on DNA duplex formation was studied using a small combinatorial library for spermine modified cytosine deoxynucleoside units. All poly-amino-oligonucleotides from this library were synthesized sep., and their ability to form duplexes with a complementary non-modified oligodeoxyribonucleotide was checked by measuring their melting temps. corroborating strong stabilizing effect of polyamine modification. The obtained results indicate that combinatorial approach can be useful in studying properties of modified oligonucleotides that might be otherwise difficult to predict when one would try to apply simple stability rules drawn on the basis of study of model oligonucleotides.

REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

RX(7) OF 29 ...Q + R ===> S...



Q

STRUCTURE DIAGRAM IS NOT AVAILABLE	STRUCTURE DIAGRAM IS NOT AVAILABLE
R: CM 1	R: CM 3

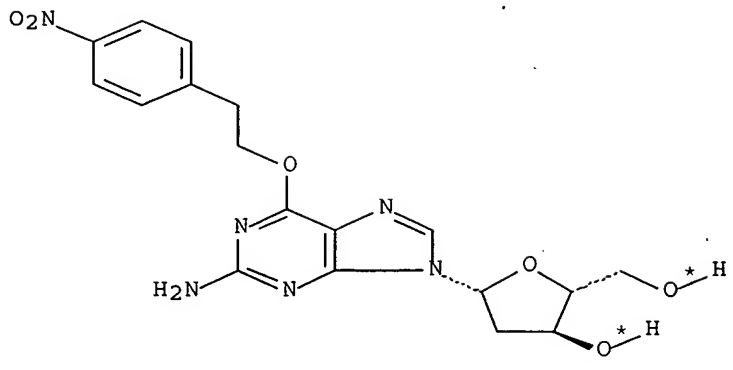
RX(7) RCT Q **195875-07-1**, R 130495-33-9

STAGE(1)
RGT T 540-80-7 t-BuONO
SOL 108-88-3 PhMe
CON 2 hours, -5 - 0 deg C

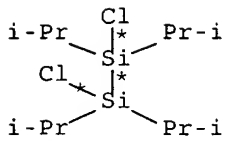
STAGE(2)
RGT U 7664-39-3 HF
SOL 110-86-1 Pyridine
CON 160 minutes

PRO S 132183-39-2

RX(16) OF 29 COMPOSED OF RX(6), RX(7)
RX(16) **O** + **P** + R ===> S



O



P

STRUCTURE DIAGRAM IS NOT AVAILABLE	STRUCTURE DIAGRAM IS NOT AVAILABLE
R: CM 1	R: CM 3

RX(6) RCT O **86137-72-6**, P **55642-25-6**
PRO Q 195875-07-1
SOL 110-86-1 Pyridine
CON 2.5 hours, room temperature
NTE stereoselective

RX(7) RCT Q 195875-07-1, R 130495-33-9

STAGE(1)
RGT T 540-80-7 t-BuONO
SOL 108-88-3 PhMe
CON 2 hours, -5 - 0 deg C

STAGE(2)
RGT U 7664-39-3 HF
SOL 110-86-1 Pyridine
CON 160 minutes

PRO S 132183-39-2

RX(17) OF 29 COMPOSED OF RX(7), RX(8)
RX(17) Q + R + G ===> W

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

STRUCTURE DIAGRAM IS NOT AVAILABLE

R: CM 1

STRUCTURE DIAGRAM IS NOT AVAILABLE

R: CM 3

RX(7) RCT Q **195875-07-1**, R 130495-33-9

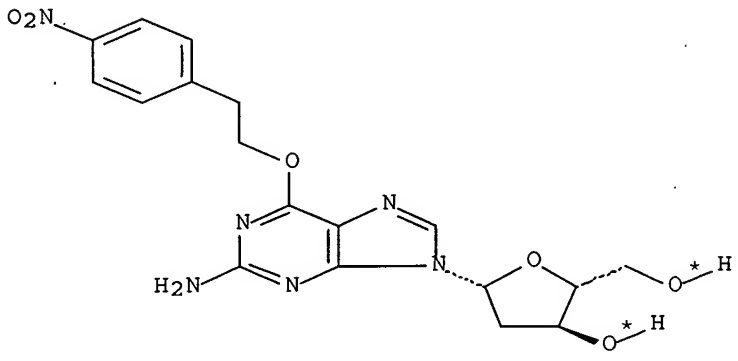
STAGE(1)
RGT T 540-80-7 t-BuONO
SOL 108-88-3 PhMe
CON 2 hours, -5 - 0 deg C

STAGE(2)
RGT U 7664-39-3 HF
SOL 110-86-1 Pyridine
CON 160 minutes

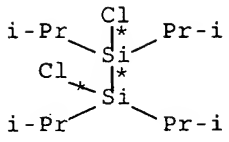
PRO S 132183-39-2

RX(8) RCT S 132183-39-2, G 40615-36-9
PRO W 153527-28-7
SOL 110-86-1 Pyridine
CON 3 hours, room temperature

RX(24) OF 29 COMPOSED OF RX(6), RX(7), RX(8)
RX(24) **O** + **P** + R + G ===> W



O



P

STRUCTURE DIAGRAM IS NOT AVAILABLE

R: CM 1

STRUCTURE DIAGRAM IS NOT AVAILABLE

R: CM 3

RX(6) RCT O 86137-72-6, P 55642-25-6
PRO Q 195875-07-1
SOL 110-86-1 Pyridine
CON 2.5 hours, room temperature
NTE stereoselective

RX(7) RCT Q 195875-07-1, R 130495-33-9

STAGE(1)
RGT T 540-80-7 t-BuONO
SOL 108-88-3 PhMe
CON 2 hours, -5 - 0 deg C

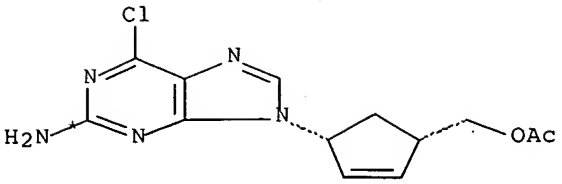
STAGE(2)
RGT U 7664-39-3 HF
SOL 110-86-1 Pyridine
CON 160 minutes

PRO S 132183-39-2

RX(8) RCT S 132183-39-2, G 40615-36-9
PRO W 153527-28-7
SOL 110-86-1 Pyridine
CON 3 hours, room temperature

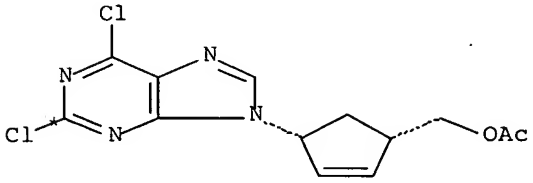
L47 ANSWER 7 OF 11 CASREACT COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 132:222784 CASREACT Full-text
TITLE: Facile conversion of 4-endo-hydroxy-2-oxabicyclo[3.3.0]oct-7-en-3-one into carbocyclic 2'-deoxyribonucleoside analogs
AUTHOR(S): Dhanda, Anupma; Knutsen, Lars J. S.; Nielsen, May-Britt; Roberts, Stanley M.; Varley, David R.
CORPORATE SOURCE: Department of Chemistry, University of Liverpool, Liverpool, L69 7ZD, UK
SOURCE: Journal of the Chemical Society, Perkin Transactions 1: Organic and Bio-Organic Chemistry (1999), (23), 3469-3475
CODEN: JCPRB4; ISSN: 0300-922X
PUBLISHER: Royal Society of Chemistry
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The readily available 3,5-syn-disubstituted cyclopentenes react with N-bromosuccinimide (or N-bromoacetamide) and silver acetate in glacial acetic acid in a highly stereoselective manner to furnish the bromoacetates in which after hydrodebromination provided the corresponding 2'-deoxyribonucleoside analogs.
REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

RX(9) OF 99 ...K ===> X...



K

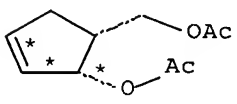
(9)



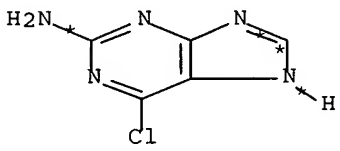
X
YIELD 61%

RX(9) RCT K 162992-44-1
RGT Y 75-77-4 Me3SiCl, Z 110-46-3 Isoamyl nitrite
PRO X 261528-53-4
SOL 75-09-2 CH2Cl2

RX(26) OF 99 COMPOSED OF RX(3), RX(9)
RX(26) I + J ===> X

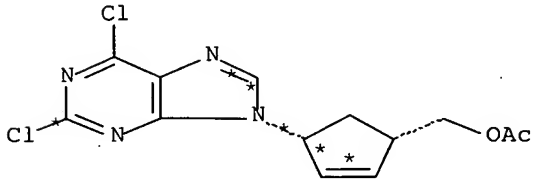


I



J

2
STEPS

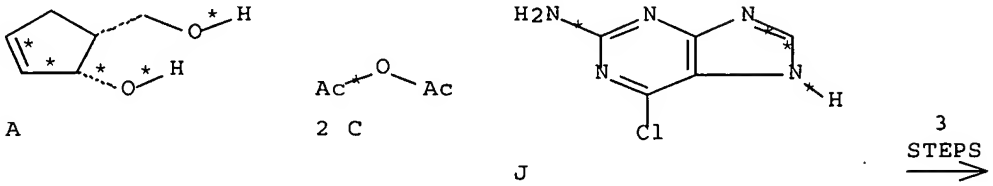


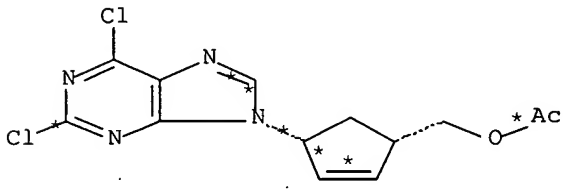
X
YIELD 61%

RX(3) RCT I 178456-34-3, J 10310-21-1
RGT L 7646-69-7 NaH
PRO K 162992-44-1
CAT 14221-01-3 Pd(PPh3)4
SOL 68-12-2 DMF

RX(9) RCT K 162992-44-1
RGT Y 75-77-4 Me3SiCl, Z 110-46-3 Isoamyl nitrite
PRO X 261528-53-4
SOL 75-09-2 CH2Cl2

RX(44) OF 99 COMPOSED OF RX(2), RX(3), RX(9)
RX(44) A + 2 C + J ===> X





X
YIELD 61%

RX(2) RCT A 143395-28-2, C 108-24-7
RGT F 1122-58-3 4-DMAP
PRO I 178456-34-3
SOL 110-86-1 Pyridine

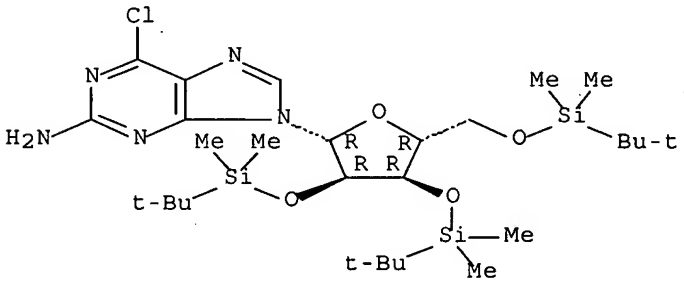
RX(3) RCT I 178456-34-3, J 10310-21-1
RGT L 7646-69-7 NaH
PRO K 162992-44-1
CAT 14221-01-3 Pd(PPh3)4
SOL 68-12-2 DMF

RX(9) RCT K 162992-44-1
RGT Y 75-77-4 Me3SiCl, Z 110-46-3 Isoamyl nitrite
PRO X 261528-53-4
SOL 75-09-2 CH2Cl2

L47 ANSWER 8 OF 11 CAPLUS COPYRIGHT 2007 ACS on STN

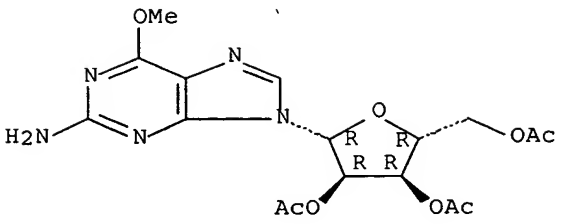
ACCESSION NUMBER: 2005:1144455 CAPLUS Full-text
DOCUMENT NUMBER: 144:7021
TITLE: Reaction of O6-methyl-guanosine with **nitrite** in the presence of carboxylic acid: synthesis of the purin-2-yl carboxylate
AUTHOR(S): Maruyama, Tokumi; Moriwaka, Nobuyasu; Demizu, Yosuke; Ohtsuka, Masami
CORPORATE SOURCE: Faculty of Pharmaceutical Sciences, Tokushima Bunri University, Sanuki City, Kagawa, 769-2193, Japan
SOURCE: Tetrahedron Letters (2005), 46(47), 8225-8228
CODEN: TELEAY; ISSN: 0040-4039
PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 144:7021
ED Entered STN: 26 Oct 2005
AB O6-methyl-guanosine derivative was treated with sodium nitrite or isoamyl-nitrite in the presence of carboxylic acid to give the purin-2-yl carboxylate, an unusual product bearing a carboxylic group at the 2-position of the purine moiety.
IT **141320-73-2**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of O6-methyl-guanosine with **nitrite** in the presence of carboxylic acid in synthesis of purin-2-yl carboxylates)
RN 141320-73-2 CAPLUS
CN 9H-Purin-2-amine, 6-chloro-9-[2,3,5-tris-O-[(1,1-dimethylethyl)dimethylsilyl]-β-D-ribofuranosyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



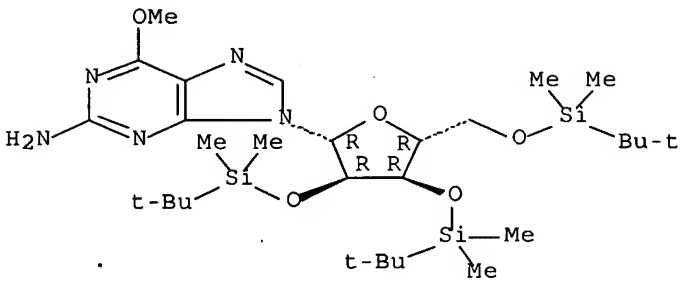
IT **92123-04-1P 869477-34-9P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); **RACT (Reactant or reagent)**
(reaction of O6-methyl-guanosine with **nitrite** in the presence of carboxylic acid in synthesis of purin-2-yl carboxylates)
RN 92123-04-1 CAPLUS
CN Guanosine, 6-O-methyl-, 2',3',5'-triacetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



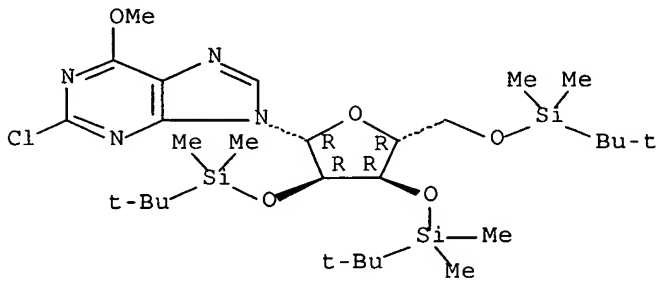
RN 869477-34-9 CAPLUS
CN Guanosine, 2',3',5'-tris-O-[(1,1-dimethylethyl)dimethylsilyl]-6-O-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **869477-38-3P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(reaction of O6-methyl-guanosine with **nitrite** in the presence of carboxylic acid in synthesis of purin-2-yl carboxylates)
RN 869477-38-3 CAPLUS
CN Inosine, 2-chloro-2',3',5'-tris-O-[(1,1-dimethylethyl)dimethylsilyl]-6-O-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

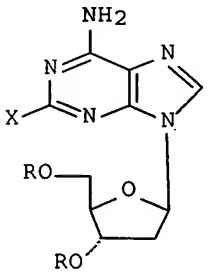
L47 ANSWER 9 OF 11 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2004:290468 CAPLUS Full-text
DOCUMENT NUMBER: 140:321651
TITLE: Process for preparing 2-halo-2'-deoxyadenosine compounds from 2'-deoxyguanosine

INVENTOR(S): Robins, Morris J.; Janeba, Zlatko; Francom, Paula
PATENT ASSIGNEE(S): Brigham Young University, Technology Transfer Office, USA
SOURCE: PCT Int. Appl., 21 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

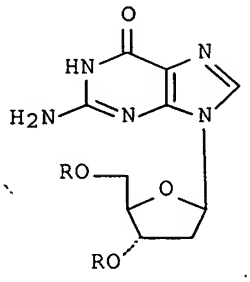
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004028462	A2	20040408	WO 2003-US30386	20030925
WO 2004028462	A3	20040610		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2540158	A1	20040408	CA 2003-2540158	20030925
AU 2003275267	A1	20040419	AU 2003-275267	20030925
EP 1556400	A2	20050727	EP 2003-759541	20030925
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2006508183	T	20060309	JP 2005-501990	20030925
US 2007032645	A1	20070208	US 2006-529106	20061009

PRIORITY APPLN. INFO.: US 2002-413915P P 20020925
US 2002-416329P P 20021004
WO 2003-US30386 W 20030925

OTHER SOURCE(S): MARPAT 140:321651
ED Entered STN: 08 Apr 2004
GI



I



II

AB The present invention discloses a method for preparing 2-halo-6-aminopurines, such as I [R = H, protecting group; X = halogen] and more specifically for preparing the clin. agent cladribine I [R = H, X = Cl], a drug of choice against hairy-cell leukemia and other neoplasms, from 2-amino-6- oxopurines, such as II [R = COMe, COPh (III)]. According to the methods of the present invention, the 6-oxo group of III is converted to a 6-(substituted oxy) leaving group, or alternatively to a 6-chloro leaving group, the 2-amino group

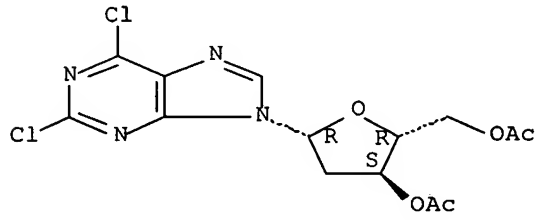
is replaced with a 2-chloro group, the 6-(substituted oxy) leaving group, or alternatively the 6-chloro leaving group, is replaced with a 6-amino group or, alternatively, a 2,6-dichloro substituted compound is selectively replaced group, and the protecting groups are removed.

IT **24638-92-4P 69992-11-6P 119771-85-6P**
500225-56-9P 500225-57-0P 500225-61-6P
500225-62-7P
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); **RACT (Reactant or reagent)**
(preparation of 2-halo-2'-deoxyadenosine compds. from 2'-deoxyguanosine)

RN 24638-92-4 CAPLUS

CN 9H-Purine, 2,6-dichloro-9-(3,5-di-O-acetyl-2-deoxy-β-D-erythro-pentofuranosyl)- (9CI) (CA INDEX NAME)

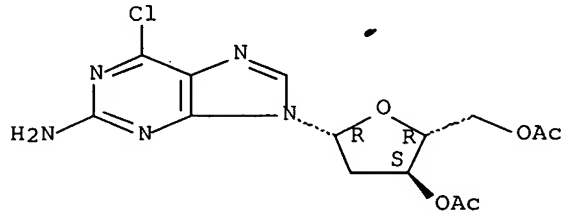
Absolute stereochemistry.



RN 69992-11-6 CAPLUS

CN 9H-Purin-2-amine, 6-chloro-9-(3,5-di-O-acetyl-2-deoxy-β-D-erythro-pentofuranosyl)- (9CI) (CA INDEX NAME)

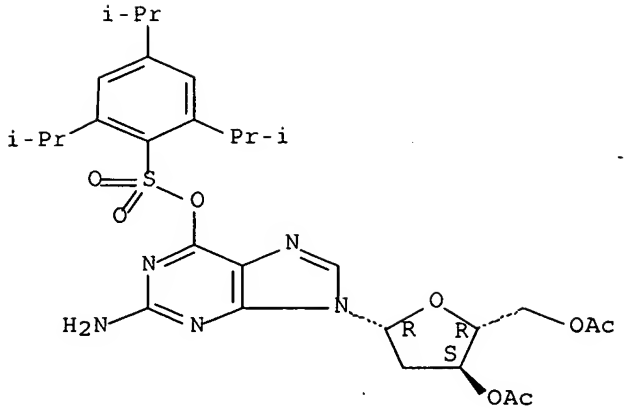
Absolute stereochemistry.



RN 119771-85-6 CAPLUS

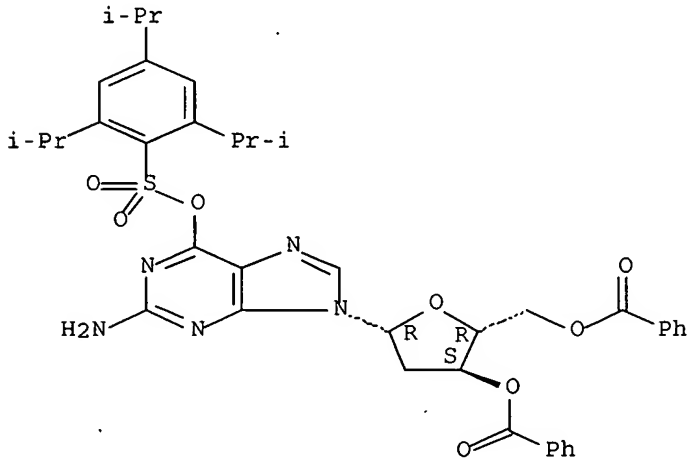
CN Guanosine, 2'-deoxy-, 3',5'-diacetate 6-[2,4,6-tris(1-methylethyl)benzenesulfonate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.



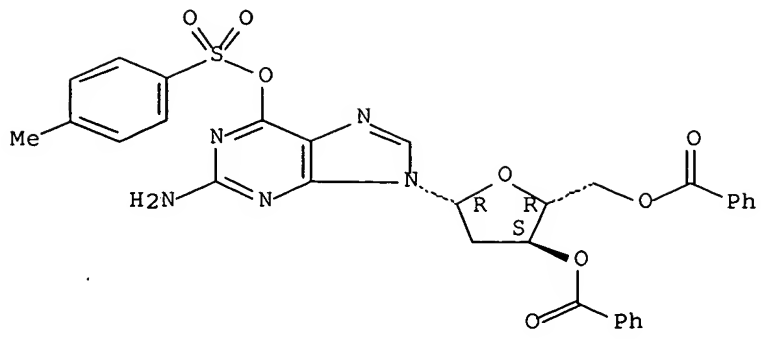
RN 500225-56-9 CAPLUS
CN Guanosine, 2'-deoxy-, 3',5'-dibenzoate 6-[2,4,6-tris(1-methylethyl)benzenesulfonate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.



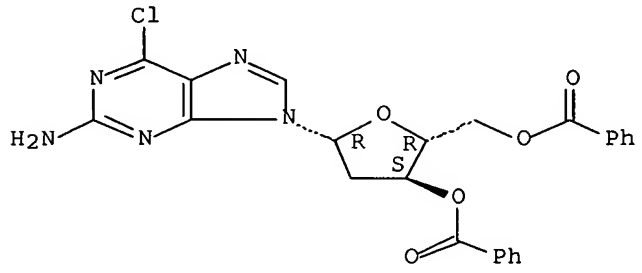
RN 500225-57-0 CAPLUS
CN Guanosine, 2'-deoxy-, 3',5'-dibenzoate 6-(4-methylbenzenesulfonate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



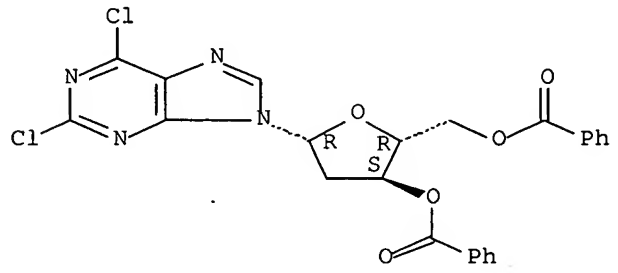
RN 500225-61-6 CAPLUS
CN 9H-Purin-2-amine, 6-chloro-9-(3,5-di-O-benzoyl-2-deoxy-β-D-erythro-pentofuranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



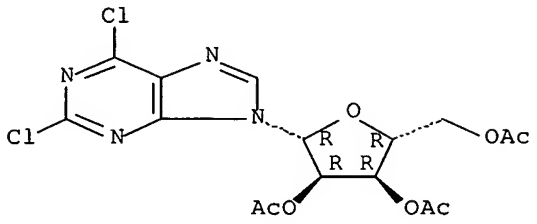
RN 500225-62-7 CAPLUS
CN 9H-Purine, 2,6-dichloro-9-(3,5-di-O-benzoyl-2-deoxy-β-D-erythro-pentofuranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



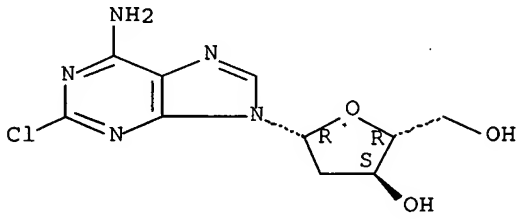
IT **3056-18-6P 4291-63-8P 40896-58-0P**
500225-58-1P 500225-59-2P 500225-60-5P
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(preparation of 2-halo-2'-deoxyadenosine compds. from 2'-deoxyguanosine)
RN 3056-18-6 CAPLUS
CN 9H-Purine, 2,6-dichloro-9-(2,3,5-tri-O-acetyl-β-D-ribofuranosyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



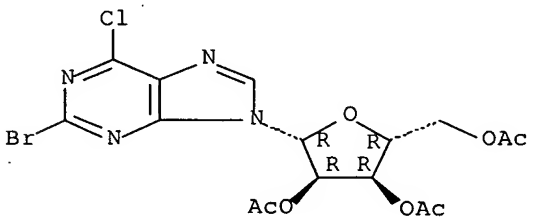
RN 4291-63-8 CAPLUS
CN Adenosine, 2-chloro-2'-deoxy- (7CI, 8CI, 9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



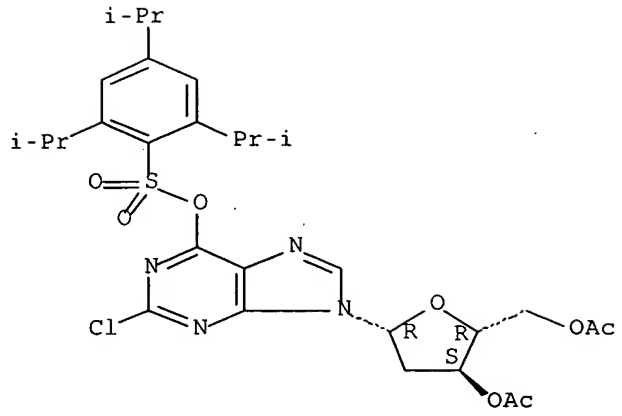
RN 40896-58-0 CAPLUS
CN 9H-Purine, 2-bromo-6-chloro-9-(2,3,5-tri-O-acetyl-β-D-ribofuranosyl)-
(9CI) (CA INDEX NAME)

Absolute stereochemistry.



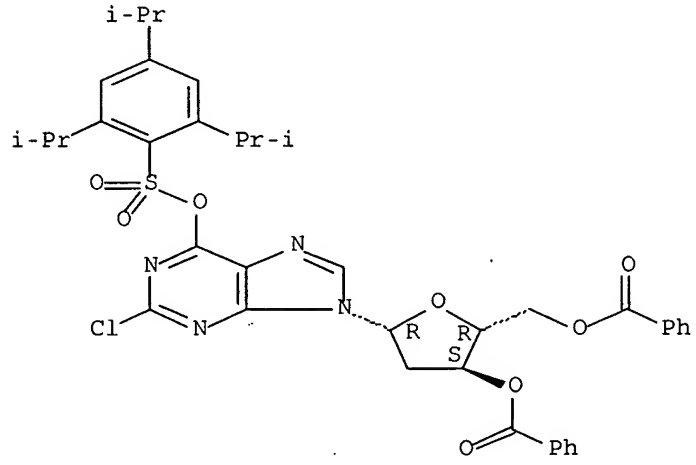
RN 500225-58-1 CAPLUS
CN Inosine, 2-chloro-2'-deoxy-, 3',5'-diacetate 6-[2,4,6-tris(1-
methylethyl)benzenesulfonate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.



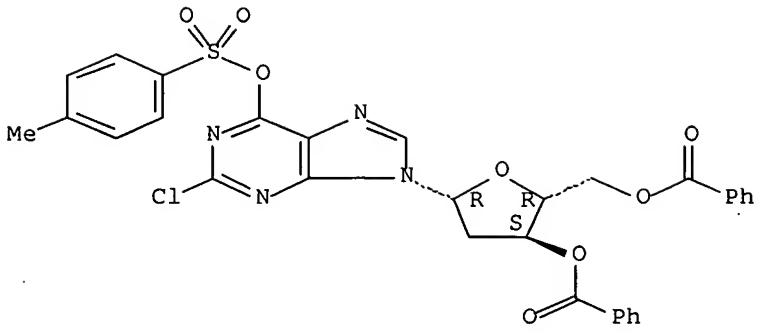
RN 500225-59-2 CAPLUS
CN Inosine, 2-chloro-2'-deoxy-, 3',5'-dibenzoate 6-[2,4,6-tris(1-methylethyl)benzenesulfonate] (9CI) (CA INDEX NAME)

Absolute stereochemistry.

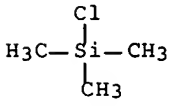


RN 500225-60-5 CAPLUS
CN Inosine, 2-chloro-2'-deoxy-, 3',5'-dibenzoate 6-(4-methylbenzenesulfonate) (9CI) (CA INDEX NAME)

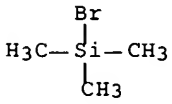
Absolute stereochemistry.



IT **75-77-4**, Trimethylsilyl chloride, reactions **2857-97-8**, Trimethylsilyl bromide **59921-49-2 69992-10-5**
RL: RCT (Reactant); **RACT (Reactant or reagent)**
(preparation of 2-halo-2'-deoxyadenosine compds. from 2'-deoxyguanosine)
RN 75-77-4 CAPLUS
CN Silane, chlorotrimethyl- (CA INDEX NAME)

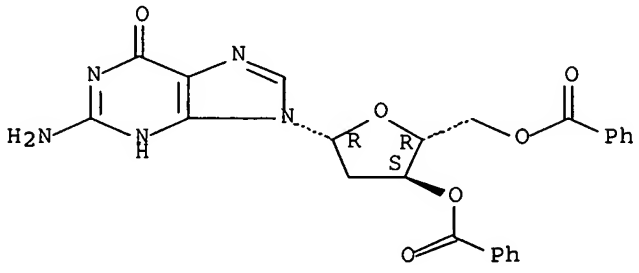


RN 2857-97-8 CAPLUS
CN Silane, bromotrimethyl- (CA INDEX NAME)



RN 59921-49-2 CAPLUS
CN Guanosine, 2'-deoxy-, 3',5'-dibenzoate (9CI) (CA INDEX NAME)

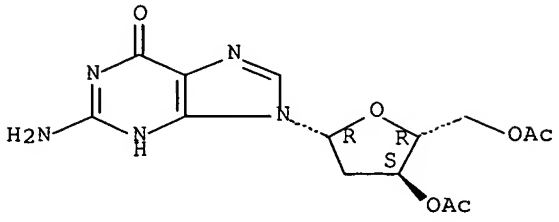
Absolute stereochemistry.



RN 69992-10-5 CAPLUS

CN Guanosine, 2'-deoxy-, 3',5'-diacetate (6CI, 7CI, 9CI) (CA INDEX NAME)

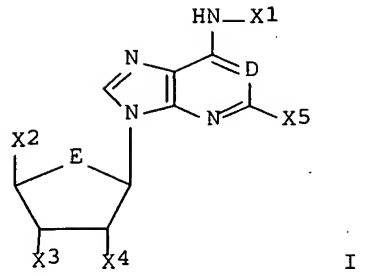
Absolute stereochemistry.



L47 ANSWER 10 OF 11 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2003:591014 CAPLUS Full-text
DOCUMENT NUMBER: 139:117653
TITLE: Preparation of nucleosides as A3 adenosine receptor agonists
INVENTOR(S): Sevillano, Luis Garcia; McGuigan, Christopher; Davies, Robin Havard
PATENT ASSIGNEE(S): Muscagen Limited, UK
SOURCE: PCT Int. Appl., 126 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003061670	A1	20030731	WO 2003-GB304	20030127
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2474337	A1	20030731	CA 2003-2474337	20030127
EP 1469864	A1	20041027	EP 2003-700933	20030127
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2006502088	T	20060119	JP 2003-561614	20030127
IN 2004KN01024	A	20060714	IN 2004-KN1024	20040720
US 2005101551	A1	20050512	US 2004-899625	20040726
PRIORITY APPLN. INFO.:			GB 2002-1849 A	20020125
			GB 2002-1919 A	20020128
			GB 2002-12438 A	20020529
			WO 2003-GB304 W	20030127

OTHER SOURCE(S): MARPAT 139:117653
ED Entered STN: 01 Aug 2003
GI



I

AB Adenosine analog-type A3 receptor agonists I, wherein D is N, NH; E is O, S, CH2; X1 is heterocyclic, bicyclic; X2 is is hydroxymethyl, alkoxymethyl, cycloalkoxy Me, carboxy, alkoxycarbonyl, cycloalkoxycarbonyl, aminoiminomethyl, alkylaminoiminomethyl, cycloalkylaminoiminomethyl, carbamoyl, alkylaminocarbonyl, cycloalkylaminocarbonyl, cycloalkylaminocarbonyl; X3 and X4 are each independently hydrogen, alkyl, hydroxyalkyl, alkoxyalkyl, ORa or NRaRb, where Ra and Rb are independently hydrogen, alkyl, aralkyl, carbamoyl, alkyl carbamoyl, dialkylcarbamoyl, acyl, alkoxycarbonyl, aralkoxycarbonyl, aryloxycarbonyl; X5 is H, halogen, alkyl, fluorinated alkyl, alkoxyalkyl, alkoxy, alkyl-ether, thioalkoxy, alkylthio, amino, alkylamino, were prepared as A3 adenosine receptor agonists. Thus, N5-(4-methyl-2-picolyl)- adenosine-5'-N-methyluronamide was prepared and tested on as A3 adenosine receptor agonist of guinea-pig trachea (IC50 = 2.2 nM).

IT **565237-15-2P**

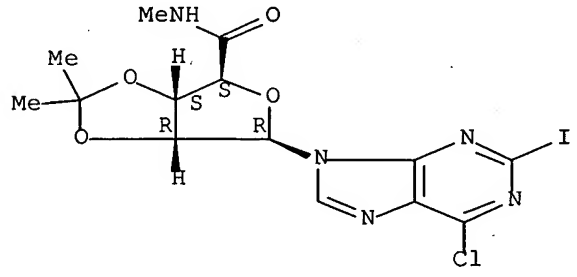
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of nucleosides as a adenosine receptor agonists)

RN 565237-15-2 CAPLUS

CN β-D-Ribofuranuronamide, 1-(6-chloro-2-iodo-9H-purin-9-yl)-1-deoxy-N-methyl-2,3-O-(1-methylethylidene)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **219755-20-1**

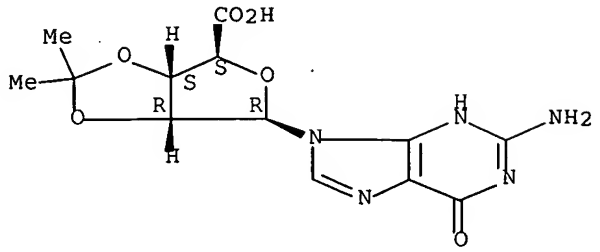
RL: RCT (Reactant); **RACT (Reactant or reagent)**

(preparation of nucleosides as a adenosine receptor agonists)

RN 219755-20-1 CAPLUS

CN β-D-Ribofuranuronic acid, 1-(2-amino-1,6-dihydro-6-oxo-9H-purin-9-yl)-1-deoxy-2,3-O-(1-methylethylidene)- (9CI) (CA INDEX NAME)

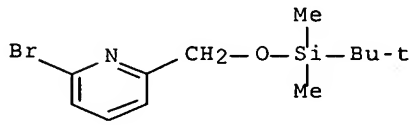
Absolute stereochemistry.



IT **150058-63-2P 565237-08-3P 565237-16-3P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of nucleosides as a adenosine receptor agonists)

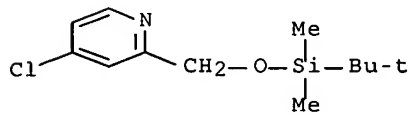
RN 150058-63-2 CAPLUS

CN Pyridine, 2-bromo-6-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]methyl]- (CA INDEX NAME)



RN 565237-08-3 CAPLUS

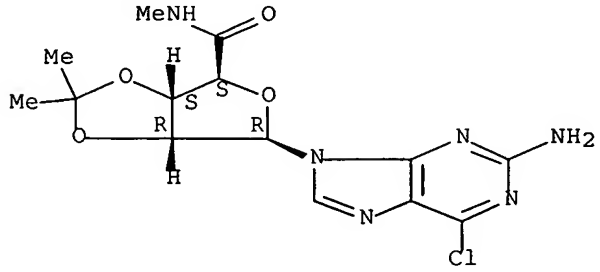
CN Pyridine, 4-chloro-2-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]methyl]- (9CI) (CA INDEX NAME)



RN 565237-16-3 CAPLUS

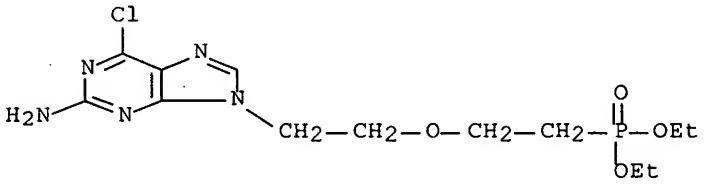
CN β-D-Ribofuranuronamide, 1-(2-amino-6-chloro-9H-purin-9-yl)-1-deoxy-N-methyl-2,3-O-(1-methylethylidene)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

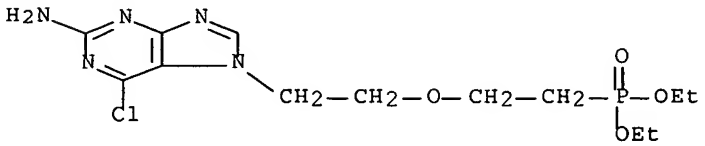


REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L47 ANSWER 11 OF 11 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 1990:532671 CAPLUS Full-text
DOCUMENT NUMBER: 113:132671
TITLE: Acyclic nucleotide analogs. VIII. Synthesis of N-(2-(2-phosphonylethoxy)ethyl) derivatives of heterocyclic bases
AUTHOR(S): Holy, Antonin; Rosenberg, Ivan; Dvorakova, Hana
CORPORATE SOURCE: Inst. Org. Chem. Biochem., Czech. Acad. Sci., Prague, 166 10, Czech.
SOURCE: Collection of Czechoslovak Chemical Communications (1990), 55(3), 809-18
CODEN: CCCCAK; ISSN: 0010-0765
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 13 Oct 1990
AB Reaction of bis(2-chloroethyl) ether with (EtO)3P afforded di-Et 2-chloroethoxyethylphosphonate. This compound reacts with Na salts of heterocyclic bases to give di-Et esters of N-[2-(2-phosphonylethoxy)ethyl] derivs. of purine and pyrimidine bases. These compds. on reaction with Me3SiBr and subsequent hydrolysis were converted into N-[2-(phosphonylethoxy)ethyl] derivs., BCH2CH2OCH2CH2P(O)(OH)2 (B = purine or pyrimidine base).
IT **129432-02-6P 129432-03-7P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and hydrolysis of)
RN 129432-02-6 CAPLUS
CN Phosphonic acid, [2-[2-(2-amino-6-chloro-9H-purin-9-yl)ethoxy]ethyl]-, diethyl ester (9CI) (CA INDEX NAME)

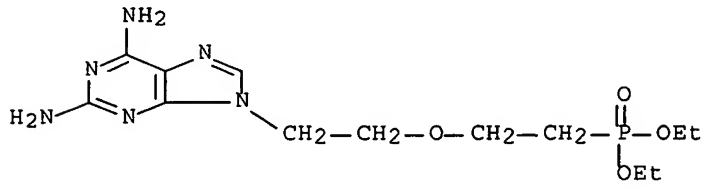


RN 129432-03-7 CAPLUS
CN Phosphonic acid, [2-[2-(2-amino-6-chloro-7H-purin-7-yl)ethoxy]ethyl]-, diethyl ester (9CI) (CA INDEX NAME)

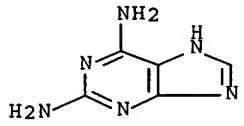


IT **129432-01-5P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation);

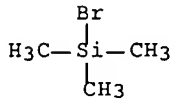
RACT (Reactant or reagent)
(preparation and silylation and hydrolysis of)
RN 129432-01-5 CAPLUS
CN Phosphonic acid, [2-[2-(2,6-diamino-9H-purin-9-yl)ethoxy]ethyl]-, diethyl ester (9CI) (CA INDEX NAME)



IT **1904-98-9**, 1H-Purine-2,6-diamine
RL: RCT (Reactant); **RACT (Reactant or reagent)**
(reaction of, with di-Et (chloroethoxy)ethylphosphonate)
RN 1904-98-9 CAPLUS
CN 1H-Purine-2,6-diamine (9CI) (CA INDEX NAME)



IT **2857-97-8**, Bromotrimethylsilane
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with di-Et phosphonylethoxyethyl derivs. of purine and pyrimidine bases)
RN 2857-97-8 CAPLUS
CN Silane, bromotrimethyl- (CA INDEX NAME)

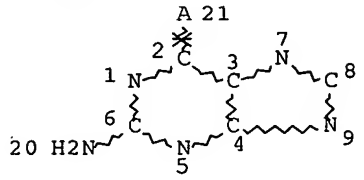


FILE 'HOME' ENTERED AT 16:52:21 ON 12 MAR 2007

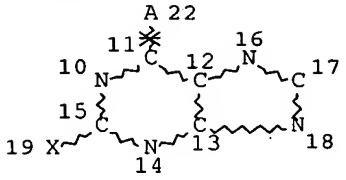
SEARCH HISTORY

=> d stat que l46; d stat que l44; d his nofile
L1 STR

RRT



PRO



NODE ATTRIBUTES:
NSPEC IS RC AT 21
NSPEC IS RC AT 22
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

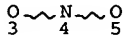
GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 22

STEREO ATTRIBUTES: NONE

****MAPPINGS****

NOD	SYM	ROL	NOD	SYM	ROL
21	A	RRT	22	A	PRO
22	A	PRO	21	A	RRT

L4 81 SEA FILE=CASREACT SSS FUL L1 (264 REACTIONS)
L20 STR



NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 3

STEREO ATTRIBUTES: NONE
L23 76 SEA FILE=CASREACT SUB=L4 SSS FUL L20 (250 REACTIONS)
L25 STR

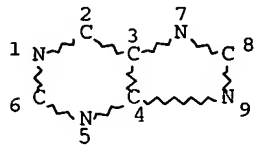
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 2

STEREO ATTRIBUTES: NONE
L28 8 SEA FILE=CASREACT SUB=L4 SSS FUL L25 (18 REACTIONS)
L29 7 SEA FILE=CASREACT ABB=ON L28 AND L23
L46 7 SEA FILE=CASREACT ABB=ON L29 OR (L29 AND (L23 OR L28))

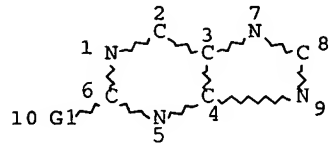
L5 184754 SEA FILE=REGISTRY ABB=ON X/ELS AND SI/ELS
L30 STR



NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC I
NUMBER OF NODES IS 9

STEREO ATTRIBUTES: NONE
L31 258797 SEA FILE=REGISTRY SSS FUL L30
L32 STR



VAR G1=NH2/X
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC I
NUMBER OF NODES IS 10

STEREO ATTRIBUTES: NONE
L35 62619 SEA FILE=REGISTRY SUB=L31 SSS FUL L32
L36 13779 SEA FILE=REGISTRY ABB=ON L35 AND X/ELS
L37 48840 SEA FILE=REGISTRY ABB=ON L35 NOT L36
L38 93825 SEA FILE=CAPLUS ABB=ON L37
L39 3461 SEA FILE=CAPLUS ABB=ON L36/P
L40 9922 SEA FILE=CAPLUS ABB=ON L38(L)RACT/RL
L41 177552 SEA FILE=CAPLUS ABB=ON L5
L42 207 SEA FILE=CAPLUS ABB=ON L39 AND L40 AND L41
L43 56042 SEA FILE=CAPLUS ABB=ON NITRITE#/OBI
L44 4 SEA FILE=CAPLUS ABB=ON L43 AND L42

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     (FILE 'HOME' ENTERED AT 15:38:00 ON 12 MAR 2007)

     FILE 'CASREACT' ENTERED AT 15:38:18 ON 12 MAR 2007
L1                STR
L2              1 SEA SSS SAM L1 (     4 REACTIONS)
                  D SCAN
L3            181 SEA SSS FUL L1 (   969 REACTIONS) EXTEND
L4             81 SEA SSS FUL L1 (   264 REACTIONS)
                  SAVE TEMP L4 BER802FULL/A

     FILE 'REGISTRY' ENTERED AT 15:42:30 ON 12 MAR 2007
L5         184754 SEA ABB=ON  X/ELS AND SI/ELS
L6          53876 SEA ABB=ON  L5 AND CASREACT/LC
                  SET NOTICE 50

     FILE 'CASREACT' ENTERED AT 15:43:17 ON 12 MAR 2007
L7          50154 SEA ABB=ON  L6
L8             24 SEA ABB=ON  L7 AND L4
L9           2409 SEA ABB=ON  L6/CAT
L10             1 SEA ABB=ON  L4 AND L9
                  D SCAN
L11               STR

     FILE 'LREGISTRY' ENTERED AT 15:47:41 ON 12 MAR 2007
L12               STR
L13            14 SEA SSS SAM L12

     FILE 'CASREACT' ENTERED AT 15:48:24 ON 12 MAR 2007
L14             0 SEA SUB=L4 SSS SAM L11 (     0 REACTIONS)
L15               STR L11

     FILE 'LREGISTRY' ENTERED AT 15:48:59 ON 12 MAR 2007
L16             6 SEA ABB=ON  NITRATE ESTER
                  D SCAN

     FILE 'CASREACT' ENTERED AT 15:49:30 ON 12 MAR 2007
                  D L15
L17             1 SEA SUB=L4 SSS SAM L15 (     4 REACTIONS)
                  D SCAN
                  D SCAN L10
                  D QUE L17
                  E US2005-509802/APPS

     FILE 'CAPLUS' ENTERED AT 16:35:37 ON 12 MAR 2007
                  E US2005-509802/APPS

     FILE 'CASREACT' ENTERED AT 16:36:35 ON 12 MAR 2007
                  D QUE L11
L18             1 SEA ABB=ON  L4(L)L9
                  D HIT
                  D QUE L11
                  SET NOTICE 20
L19             0 SEA SUB=L4 SSS SAM L11 (     0 REACTIONS)
L20               STR L11
L21             1 SEA SUB=L4 SSS SAM L20 (     4 REACTIONS)
                  D SCAN
L22            76 SEA SUB=L4 SSS FUL L20 (   250 REACTIONS) EXTEND
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L23          76 SEA SUB=L4 SSS FUL L20 (   250 REACTIONS)
                SAVE TEMP L23 BER802SUB1/A
L24          21 SEA ABB=ON  L23 AND L7
L25             STR
L26           0 SEA SUB=L4 SSS SAM L25 (     0 REACTIONS)
L27           8 SEA SUB=L4 SSS FUL L25 (    18 REACTIONS) EXTEND
L28           8 SEA SUB=L4 SSS FUL L25 (    18 REACTIONS)
                SAVE TEMP L27 BER802SUB2/A
L29           7 SEA ABB=ON  L28 AND L23
                SAVE TEMP L29 BER802SUB3/A
                D SCAN

     FILE 'REGISTRY' ENTERED AT 16:42:48 ON 12 MAR 2007
                D SAVED
                D COST
                ACT BER645FULL/A
               ---------
L30             STR
L31      258797 SEA SSS FUL L30
              ---------
L32             STR L30
L33          50 SEA SUB=L31 SSS SAM L32
L34      110734 SEA SUB=L31 SSS FUL L32 EXTEND
L35       62619 SEA SUB=L31 SSS FUL L32
L36       13779 SEA ABB=ON  L35 AND X/ELS
L37       48840 SEA ABB=ON  L35 NOT L36

     FILE 'CAPLUS' ENTERED AT 16:46:11 ON 12 MAR 2007
L38       93825 SEA ABB=ON  L37
L39        3461 SEA ABB=ON  L36/P
L40        9922 SEA ABB=ON  L38(L)RACT/RL
L41      177552 SEA ABB=ON  L5
L42         207 SEA ABB=ON  L39 AND L40 AND L41
L43       56042 SEA ABB=ON  NITRITE#/OBI
L44           4 SEA ABB=ON  L43 AND L42

     FILE 'CASREACT' ENTERED AT 16:49:04 ON 12 MAR 2007
                D STAT QUE L29

     FILE 'CAPLUS' ENTERED AT 16:49:13 ON 12 MAR 2007
                D STAT QUE L44

     FILE 'CASREACT, CAPLUS' ENTERED AT 16:49:21 ON 12 MAR 2007
L45          11 DUP REM L29 L44 (0 DUPLICATES REMOVED)
                     ANSWERS '1-7' FROM FILE CASREACT
                     ANSWERS '8-11' FROM FILE CAPLUS
                D IBIB ABS HIT

     FILE 'CASREACT' ENTERED AT 16:51:09 ON 12 MAR 2007
L46           7 SEA ABB=ON  L29 OR (L29 AND (L23 OR L28))

     FILE 'CASREACT' ENTERED AT 16:51:26 ON 12 MAR 2007
                D STAT QUE L46

     FILE 'CAPLUS' ENTERED AT 16:51:31 ON 12 MAR 2007
                D STAT QUE L44

     FILE 'CASREACT, CAPLUS' ENTERED AT 16:51:39 ON 12 MAR 2007
L47          11 DUP REM L46 L44 (0 DUPLICATES REMOVED)
                     ANSWERS '1-7' FROM FILE CASREACT
```

```
                ANSWERS '8-11' FROM FILE CAPLUS
            D IBIB ABS HIT
            D IBIB ABS HIT 2-7
            D IBIB ED ABS HITSTR 8-11

FILE 'HOME' ENTERED AT 16:52:21 ON 12 MAR 2007
            D STAT QUE L46
            D STAT QUE L44

=>
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